ABSTRACT

The present invention includes polymers and photoresist compositions that comprise the polymers as a resin binder component. Photoresists of the invention include chemically-amplified positive-acting resists that can be effectively imaged at short wavelengths such as sub-200 nm, particularly 193 nm. Polymers of the invention contain in specified molar ratios both nitrile and photoacid labile groups that have an alicyclic moiety, particularly a bridged bicyclic or tricyclic group or other caged group. Polymers and resists of the invention can exhibit substantial resistance to plasma etchants.